

**AMENDMENT TO THE CLAIMS**

The listing of claims below will replace all prior versions, and listings, of the claims in the application.

Claims 1 – 74 (cancelled).

*1*  
Claim ~~75~~ (previously presented): An isolated polynucleic acid molecule encoding a protein comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 38 and SEQ ID NO:42.

*2*  
Claim ~~76~~ (previously presented): An isolated polynucleic acid molecule encoding a protein comprising an amino acid sequence selected from the group consisting of Cys<sup>44</sup> through Cys<sup>389</sup> of SEQ ID NO:38 and Cys<sup>41</sup> through Cys<sup>337</sup> of SEQ ID NO:42, wherein said protein is capable of binding to a glial cell line-derived neurotrophic factor or a neurturin neurotrophic factor such that the resulting protein/neurotrophic factor complex can bind to and induce phosphorylation of ret receptor protein tyrosine kinase.

*3*  
Claim ~~77~~ (previously presented): An isolated polynucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of:

- a) nucleotides of SEQ ID NO:37 encoding SEQ ID NO:38, and
- b) nucleotides of SEQ ID NO:41 encoding SEQ ID NO:42.

*4*  
Claim ~~78~~ (previously presented): A vector comprising a polynucleic acid molecule of claim ~~75~~, ~~76~~ or ~~77~~ operatively linked to one or more operational elements effecting the amplification or expression of said polynucleic acid molecule.

*5*  
Claim ~~79~~ (previously presented): A vector comprising a polynucleic acid molecule encoding a protein comprising the amino acid sequence of SEQ ID NOs: 38 or 42 operatively linked to one or more operational elements effecting the amplification or expression of said polynucleic acid

molecule, wherein said protein is capable of binding to a neurotrophic factor such that the resulting protein/neurotrophic factor complex can bind to and induce phosphorylation of ret receptor protein tyrosine kinase.

<sup>6</sup>  
Claim <sup>80</sup> (previously presented): An isolated host cell comprising a vector of claim <sup>78</sup>.

<sup>9</sup>  
Claim <sup>81</sup> (previously presented): An isolated host cell comprising a vector of claim <sup>79</sup>.

<sup>7</sup>  
Claim <sup>82</sup> (previously presented): An isolated host cell comprising a vector of claim <sup>78</sup> wherein said host cell is selected from the group consisting of a mammalian cell and a bacterial cell.

<sup>8</sup>  
Claim <sup>83</sup> (previously presented): A host cell of claim <sup>82</sup> which is a COS-7 cell or E. coli.

<sup>11</sup>  
Claim <sup>84</sup> (previously presented): A method for the production of a neurotrophic factor receptor protein, said method comprising the steps of:

(a) culturing an isolated host cell, containing a polynucleic acid molecule encoding a protein comprising an amino acid sequence selected from the group consisting of

- (i) SEQ ID NO:38, and
- (ii) SEQ ID NO:42,

under conditions suitable for the expression of said neurotrophic factor receptor protein by said host cell; and

(b) optionally, isolating said neurotrophic factor receptor protein expressed by said host cell.

Claim 85 - 86 (cancelled).

<sup>10</sup>  
Claim <sup>87</sup> (previously presented): A method for the production of a neurotrophic factor receptor protein comprising the steps of:

<sup>3</sup> (a) culturing an isolated host cell containing a polynucleic acid molecule of claim <sup>75, 76</sup> or <sup>79</sup> under conditions suitable for the expression of said neurotrophic factor receptor protein by said host cell; and

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(b) optionally, isolating said neurotrophic factor receptor protein expressed by said host cell.